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THE
BELFAST MONTHLY MAGAZINE.

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COMMUNICATIONS ORIGINAL AND SELECTED.

For the Belfast Monthly Magazine.

ON IRISH TIMBER.

THE traveller who has had an opportunity of viewing the productions of nature in various regions, must be struck with the contrast between the wonderful luxuriance of Tropical vegetation, and that which takes place after passing the boundaries of the temperate zones. Adamnson found on the banks of the Senegal, several trees from 65 to 78 feet in circumference, and braving the tremendous convulsions of a thousand years; the great chesnut of Mount Etna, whose trunk of 204 feet in circumference, and ample shade, seems placed on the confines of ice and flame, in order to exhibit the various powers of nature. To these we may oppose the dwarf willow, with a stem of only two or three inches the only woody species of plant hitherto discovered in the inhospitable regions of Spitzbergen.

In England a sweet chesnut has grown in Hertfordshire, to 42 feet in circumference, and another at Trotworth, in Glocestershire to 44 feet 4 inches. The Cowthrope oak, near Wetherby, Yorkshire, to 48 feet; Boddington oak, in the vale of Glocester, to 42 feet, and another at Broomfield Park, in the year 1764, measured 68 feet in girt.

And notwithstanding the many arguments which have been advanced to the contrary, the following instances seem to prove satisfactorily, that Ireland is capable of producing large timber. In the year 1793, there was cut down on the estate of Wm. Hoey, esq. at Dunganstown, three chesnuts, one of which measured 16 feet 6 inches, another 15 feet, and a third 14 feet 3 inches in girt; the length of one was 24 feet, and the other 36. At Pertmore Park, on the shore of Lough Neagh, in the county of Antrim, there was an oak growing within the memory of some persons yet alive, that may stand in comparison with the before-mentioned celebrated trees of England. The trunk of this tree was 42 feet girt, and 25 feet long to the first branch, one of the branches made into an Axletree for a bleach-mill, sold at £9. the remainder of the tops nearly built a lighter, called the Royal Oak, which carried 40 tons; this was sold for £30. oak timber at that time sold for 1s. 6d. per foot. Our correspondent informs us the timber brought £97. but the bark being sold, with other bark of the park, what it brought is not exactly known. Were more instances necessary to prove that the climate of Ireland seems peculiarly favourable to the growth of large timber, it would be easy to produce them. Our country has been long famous for the solidity and strength of its oak; we need not therefore travel abroad for this useful tree, our own woods produce in the greatest abundance the best kind of seed; but few people are aware that there are three kinds of oak, indigenous to the soil, and that the fame of Irish oak timber depends altogether on that of the best quality being the most common, the first and best, Quercus Robur, Mart Flo. Rust. t. 10. is characterized by the acorns, sitting on long stalks, and the leaves close to the branches; this is well known in the British dock-yards, and bears the highest price. The second, Quercus sessiliflora Mart. Flo. Rust. t. 11. is the quickest growing tree, has coarse grained timber of little value, and is characterized by the acorns sitting close to the branches, and large leaves or stalks. The third Durmast Oak, Mart. Flo. Rustica t. 12. is a small crooked growing tree, a variety of the last; and reckoned on account of its small size and crooked timber of little value.

Let any one look at plantations made some years, and wherever the trees have met a soil suitable to their roots, he will find they have exceeded the expectations of the planter, and promise to give a good profit for the land and expenses; indeed it appears that the most powerful cause against the growth of large timber, is the desire for converting every tree into money, and if gentlemen would forego the present advantage, and not be so often persuaded to cut trees before they had attained their full size, a succeeding generation might have the pleasure of seeing our country adorned with as large trees as most others. Before a tree is doomed to fall, the owner should calculate whether it is improving, has attained its highest perfection, or is going to decay. The first is as plainly shown by abundance of large leaves, as good health by a vigorous pulse in the human subject, while small leaves with rotting extremities to the branches, as clearly indicate its decline, and that it is only encumbring that ground on which a thriving progeny might arise. It has been determined that "great trees grow more timber in a year than small ones; for if a coat of one sixth of an inch is laid on all round, then the timber added to the body every year is its length multiplied by the thickness of the coat, and by the girth, and therefore the thicker the tree is, the more timber is added." "If profit be considered, a tree ought to be cut down and sold, when the annual increase in value by its growth, is less than the annual interest of the money it would sell for. This being admitted we have only to inquire into the annual increase in the value."

"Before I quit this subject, I must beg leave to take notice of another great evil which is of so much consequence to the public, as to deserve their utmost attention; which is that of cutting down the oaks in the spring of the year, at the time when the sap is flowing. This is done for the sake of the bark, which will then peel easily off, and for the sake of this, I think there is a law, whereby people are obliged to cut down their timber at this season. But by so doing, the timber is not half so durable as that which is felled in the winter, so that those ships, which have been built of this spring cut timber, have decayed more in seven or eight years, than others which were built with timber cut in winter, have done in twenty or thirty. And this our neighbours the French have experienced, and therefore have wisely ordered that the bark should be taken off the trees standing, at the proper time, but the trees are left to the next, and sometimes until the second winter before they are cut down; and the timber of these are found to be more durable and better for use, than that of any trees which have not been peeled."

The Count de Buffon has determined by a series of experiments conducted with the greatest accuracy, that barking of trees standing, is attended with the most beneficial effects in augmenting the strength of timber.

A piece of a tree which had been barked standing, 14 feet 6 inches square, weighing 242lb. broke under 7940lb. A piece from a similar tree, but unbarked, and of the same dimensions, weighing 234lb. broke under 7320lb.

A similar piece of barked, weight 249lb. broke under 8362lb.

Its companion unbarked, weight 236lb. broke under 7385lb.

Two others of the same dimensions supposed the best timber, the barked, weighing 263lb. bore, before it broke, 9046lb. The unbarked piece, weighing 238lb. broke under 7500lb.

The above trials are sufficient to show that wood stripped of its bark, and dried standing, is always heavier, and considerably stronger, than wood kept in its bark.

That the sacrifice of the timber for the sake of the bark is totally unnecessary is also proved by the experiments of both Mr. Biggin and Mr. Davy.

Comparative scale of barks, by G. Biggin, esq.

Tanning principle (in grains) from half a pint of infusion.

Sumack	158
Huntingdon or Leicester willow	109
Oak cut in Spring	108
Smooth Oak	104
Spanish Chesnut	98
Ash	82
Hazel	79
Poplar	76
Mountain Ash	60
Horse Chesnut	30
Oak cut in Winter	30

See Phil. Tran. for 1799, p. 263.

By Mr. Davy's Experiments.

	Grains of Tannin.
An ounce of the white cortical layer of old Oak Bark	72
... ... Young Oak	77
... Spanish Chesnut	63
... Leicester Willow	79
An ounce of the whole bark of Oak	29
... ... Spanish Chesnut	21
... ... Leicester Willow	33
... ... Elm	13
... ... Sicilian Sumack	78
... ... Malaga Sumack	79
An ounce of Souchong Tea	48
... ... Green Tea	41

Phil. Tran. for 1803, p. 239.

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For the Belfast Monthly Magazine.

Επι χοινικι μη καθιζε.

Sit not upon a Bushel.

THIS symbol, though rather more retired than its predecessor, yet promises no great difficulty in the investigation. In order to attain to this *moral* x, y—this thing yet unknown—let us proceed to consider that which is known. A bushel, then, is a vessel appointed for the measurement of certain goods, a purpose, from which in the establishment of the just economist it will not be diverted. In fact, the leading principle of a well regulated household is, that every thing be applied to its appropriate use, and to none other; where this useful principle is violated, we may naturally expect to find poverty the reigning mistress.

By extending the application of this principle, we have a precept, which we may profitably employ in the brief form of its symbol, "Apply every thing to its proper use." But, though this precept may have been conceived to originate in observations made within the limited sphere of a household, its application needs not to be limited there-